

ON SOME AUSTRALIAN AND SOUTH AFRICAN SPECIES OF ACARINA OF
THE GENUS STEREOTYDEUS. [PENTHALODIDAE.]

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(Three Text-figures.)

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STEREOTYDEUS AUSTRALICUS Sig. Thor (*Zool. Anz.*, 1934).

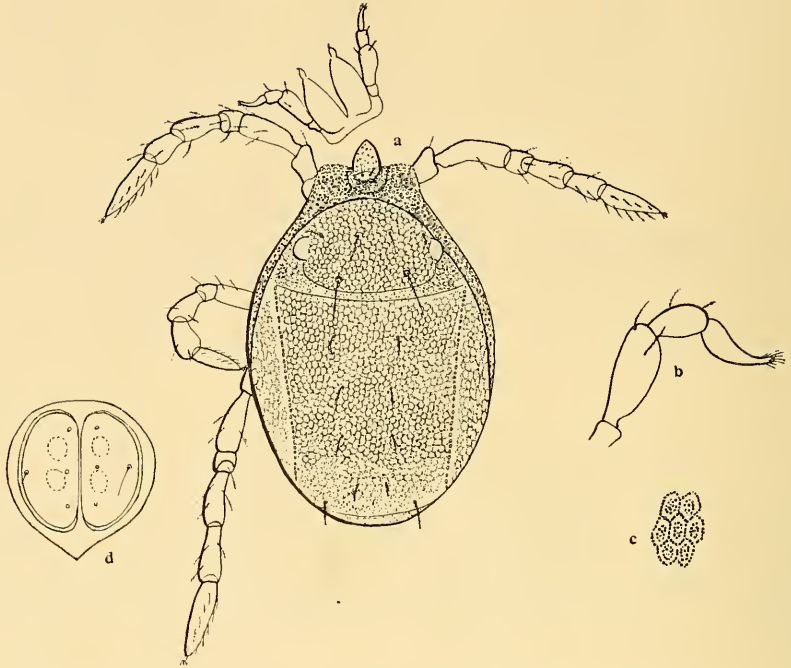
Dr. Sig. Thor described this species from a mounted specimen collected by me from moss at Crawley, Western Australia, in May, 1931. In my collection, now in the South Australian Museum, are three more specimens from the type locality and collected at the same time. In addition, there are two other specimens, one taken from moss at Glen Osmond, South Australia, in July, 1934, the other collected at Sassafras, Victoria, by Mr. H. G. Andrewartha in December, 1931.

STEREOTYDEUS AREOLATUS, n. sp. Text-fig. 1, *a-d*.

Description: Smaller than the above species, 330μ long, 160μ wide. Colour, in spirit, at first entirely blackish-green, gradually becoming pigmentless; in life dark greenish-black except for the dorsal body shield, legs and mouth-parts which are pinkish. Palpi 4-segmented, 108μ long; segment I short, only 15μ long, II 42μ long, much swollen distally and outwardly, and with two ciliated hairs, III half as long as II, 21μ , with two hairs, IV 30μ long, swollen basally but rapidly tapering and curved (cf. fig.), ending in 4-5 short ciliated hairs. Mandibles as in *S. australicus*. Pseudocapitulum present but indistinct, with two short hairs. Epirostral plate distinct, trilobed and the lobes distinctly separated. Eyes distinct, large, one on each side placed anteriorly of the basal angles of the cephalothoracic shield. This shield with the usual pair of sensory hairs and two pairs of shorter ordinary hairs, one pair placed close to the eyes and the other medial to these and in the same horizontal line. Legs 6-segmented, much as in *S. australicus*, fairly stout, the femora of first pair not excessively narrowed at the base and not more than three times as long as wide. The dorsal body hairs are arranged in five pairs and are all long, 26μ , and ciliated. The legs are clothed with ciliated hairs and a very fine pubescence, and end in two claws and an empodial pad. The cuticle of the cephalothorax and dorsum is ornamented with many fine pits which form roughly hexagonal areas, each of which has a small number of pits within itself.

Locality: Type from moss, Adelaide, South Australia, May, 1934; paratype from moss from Burnside, South Australia, in July, 1934.

Remarks: This species differs from *S. australicus* in the smaller size, sculpture and the characteristic palp.



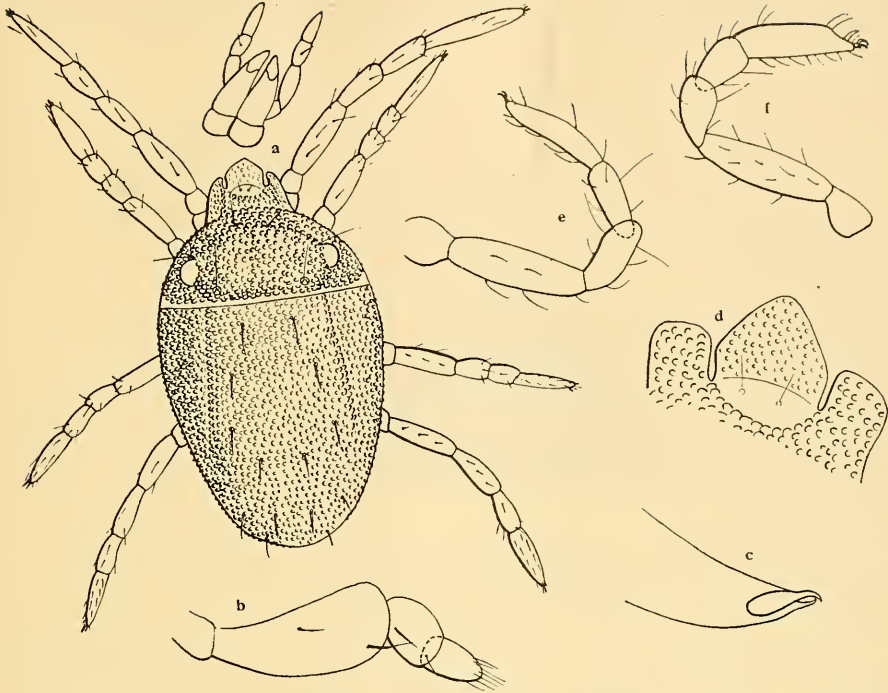
Text-fig. 1.—*Stereotydeus areolatus*, n. sp. a, dorsal view; b, palp; c, cuticle of dorsal shield; d, genital opening.

STEREOTYDEUS OCCIDENTALE, n. sp. Text-fig. 2, a-f.

Description: Length 420μ , width 220μ . Colour in life blackish, except for an indefinite rather narrow reddish stripe down the dorsum, and red legs and mouth-parts; in spirit entirely black at first, gradually becoming pigmentless. Palpi 4-segmented, 99μ long; segment I 23μ long, II 52μ long, very broad distally and with 2 hairs, III short, 14μ , with 2 hairs, IV shorter still, 10μ long, and stumpy, with a few terminal hairs. Mandibles as in other species. Pseudocapitulum present, with two hairs. Epirostral plate distinct, trilobed, lateral lobes distinctly separated from the medial. Eyes, one on each side, distinct and placed well in front of the basal angles of the cephalothoracic shield. Cephalothoracic sensory and normal hairs as in other species. Legs only 5-segmented, fairly stout, the fore femora not more than three times as long as wide. Legs clothed with ciliated hairs and a very fine pubescence, ending in a pair of claws and an empodial pad. The dorsal body hairs arranged in 4 pairs, then a row of four followed by two subapical hairs, all of which are ciliated and 16μ in length. The cuticle of the cephalothoracic and dorsal shield is uniformly covered with large rounded tubercles which are separated by about their own diameter.

Locality: Abundant in moss from Glen Osmond, South Australia, May to August, 1934.

Remarks: Rather close to *S. australicus*, but differs in size, sculpture and particularly the 5-segmented legs.



Text-fig. 2.—*Stereotydeus occidentale*, n. sp. a, dorsal view; b, palp; c, mandible; d, epirostral plate; e, leg IV; f, leg I.

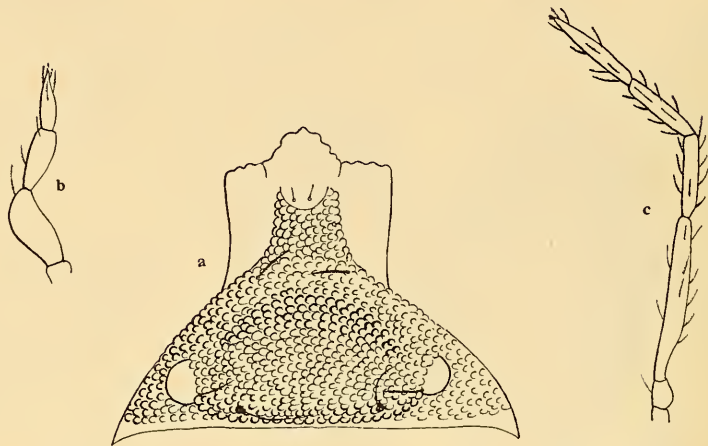
STEREOTYDEUS CAPENSIS, n. sp. Text-fig. 3, a-c.

Description: Length 630μ , width 450μ . Colour in life probably blackish, with or without some red. Palpi 185μ long; segment I 40μ , II 66μ , not unduly stout or broadened distally, with one (? two) hair, III 50μ long, with two hairs, IV 42μ long, with a number of apical and subapical hairs. Mandibles as in other species. Pseudocapitulum present with the usual two hairs. Epirostral plate distinct, trilobed, but the lateral lobes are fused to the medial and only lightly sculptured, or not at all. Eyes one on each side, large and slightly anterior of the basal angles of cephalothoracic shield. This shield has the usual sensory and other hairs. Legs very slender, 5-segmented; I and IV longer than the body, 700μ , femora of all legs very much contracted at the base and about $8-8\frac{1}{2}$ times as long as wide at the widest point. Cuticle of cephalothorax and dorsum with large tubercles which on cephalothorax and medial lobe of epirostral plate are almost touching. Legs with ciliated hairs and very fine pubescence. Body hairs 26μ long and ciliated.

Locality: Type and 6 paratypes from Cape Town, South Africa, in August, 1930 (H.W.).

Remarks: The preparations available for study do not permit a more detailed description of this species to be given. It differs from all other forms, except *S. occidentale*, in having 5-segmented legs. From that species it is distinguished

by the sculpturing, form of the epirostral plate and the slender and basally contracted femora.



Text-fig. 3.—*Stereotydeus capensis*, n. sp. a, cephalothorax and epirostral plate; b, palp; c, leg I.

Remarks on the Genus *Stereotydeus*.

The genus *Stereotydeus* was erected by Berlèse and Leonardi (*Zool. Anz.*, Bd. 25, 1901) for two species, *S. notaphalloides* and *S. gamasoides*, from South America. In 1907 Trägårdh erected the genus *Tectopenthalodes* for *T. villosus* from the Subantarctic (Schwedischen Sudpolar Exped., 1901-3), which he stated was closely related to *Stereotydeus*, but differed in having a 5-segmented palp. It also lacked eyes.

In 1912 Berlèse (Deuxième Exped. Antarctique Française, 1908-10) again recorded *T. villosus*, and in his discussion reduced *Tectopenthalodes* to a subgenus of *Stereotydeus*, pointing out that Trägårdh was wrong in considering the palpi as 5-segmented. Berlèse defined *Tectopenthalodes* as a subgenus thus: "Caractères generis, sed oculi inconspicui. Adest pseudocapitulum."

Now, in all the species recorded in this paper the eyes are very conspicuous and the pseudocapitulum is distinct. They are, therefore, intermediate between *Stereotydeus* and *Tectopenthalodes*, and the latter cannot be maintained even as a subgenus.

In two of the species dealt with in this paper there is a remarkable difference from all other described species of *Stereotydeus* in that the legs are only 5-segmented instead of 6-segmented. This may possibly be of generic or subgeneric value.